



999 WEST VALLEY ROAD  
WAYNE, PENNSYLVANIA 19087  
215-687-9510

March 26, 1990  
R-585-3-0-44  
68-01-7346

#427731  
(804)

Mr. Gregory Ham  
U.S. Environmental Protection Agency  
841 Chestnut Building  
Ninth and Chestnut Streets  
Philadelphia, PA 19107

Subject: Sampling Plan  
TDD No. F3-9003-08  
EPA No. MD-113  
Crown Central Petroleum  
Baltimore, Maryland

Dear Mr. Ham:

Submitted herewith is a sampling plan for the subject site, as discussed during a telephone conversation with Gregory Ham on March 23, 1990. The site inspection has been tentatively scheduled for April 10 or 11, 1990. Permission for site access will be obtained from the current owners, Petroleum Fuel and Terminal Corporation. Edward Carlson, of the Maryland Department of Natural Resources, has been notified of the sampling schedule.

#### Summary

The Crown Central Petroleum Corporation occupies approximately eight acres of land in Baltimore, Maryland. Crown Central operated a fuel storage terminal at the site from 1947 until 1968. The property was unused from 1968 until 1970, when Crown Central leased the land to Petroleum Marketing Corporation, a subsidiary of Petroleum Fuel and Terminal Corporation.

Petroleum Marketing operated the site until April 1978, at which time the site was sold to Petroleum Fuel and Terminal Corporation (the present owners and occupants of the site).

During its years of operation, Crown Central followed the common industry practice of disposing lead-contaminated sludge from the bottoms of storage tanks by the spreading/weathering and burial methods. Crown Central was unable to locate the burial pits at the site or to supply estimates of materials alleged to have been buried.

When Petroleum Fuel and Terminal Corporation took ownership of the site, no weathering areas or burial pits were discovered. An open area in the northwestern corner of the property contained ores and slags from a late 19th-century copper and steel works. Since 1979, this open area has been compacted to a depth of six to seven feet, and two storage tanks have been erected.

A preliminary assessment of the site was conducted by the Maryland Department of Health and Mental Hygiene on September 16, 1983.

The site is bordered on the west by the Northwest Branch of the Patapsco River. A network of storm drains, which collects surface water runoff, empty into an oil/water separator. Discharge from the separator flows to the Patapsco River.

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The facility holds NPDES Permit No. 80-DP-1688 for its oil/water separator discharge and Air Permit No. X01923-00026. No remedial action has taken place at the subject site to date.

#### Drinking Water Supply

The entire study area utilizes water obtained from surface water sources. The Montebello Water Company (MWC) supplies water to the city of Baltimore and portions of Baltimore, Howard, and Anne Arundel Counties. The (b) (9), which serves as the main source for MWC, is located outside the study area. No private home wells are known to exist in the study area, but it is possible that people opted to maintain private groundwater wells for their domestic use.

Several industrial facilities in the study area utilize groundwater wells to obtain water for industrial supplies.

#### Geology Information

The majority of the study area lies within the Atlantic Coastal Plain Physiographic Province of Maryland. This region displays a nearly level to moderately undulating topography that is dissected by many low-gradient streams. The entire area is intensely urbanized, and the natural topography has been modified for the construction of buildings, industry, and roads.

The Atlantic Coastal Plain sediments, which dip to the southeast under the site, have a maximum thickness of about 800 feet in Baltimore County. The Coastal Plain wedge of sediments rests unconformably upon the Precambrian and Lower Paleozoic age crystalline rocks of the Piedmont Physiographic Province.

#### Groundwater Information

In general, there is a moderate to good water-bearing potential from the unconsolidated sediments and rocks underlying the study area. In unconsolidated rock, well yields are accentuated when medium- to coarse-grained, well-sorted quartz sands with little matrix are encountered. Groundwater is expected to be found at a shallow depth, since the site is adjacent to the Patapsco River.

#### Sampling to Date

Available information indicates that no sampling has been performed at the site to date.

#### Proposed Sampling Plan

The proposed sampling locations include the following:

- Subsurface soil samples should be obtained at depths of two to three feet: one from the area between tank no. 1 and tank no. 2; one northeast of tank no. 2; one northwest of tank no. 3; one northeast of tank no. 4 and one east of tank no. 5; one northwest of tank no. 6; one west of tank no. 7; one west of the one-story building; one northeast of tank no. 8; and one northwest of tank no. 9.
- One aqueous sample should be obtained from the oil/water separator discharge to Patapsco River.

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- One sediment sample should be obtained from the storm drain feed to the oil/water separator.
- One background soil sample should be obtained.

The total number of samples to be obtained is 14 solids and 3 aqueous, including duplicates and blanks. Sample analysis will be performed for routine Contract Laboratory Program organic and inorganic parameters. All samples will be obtained in accordance with standard protocol as indicated on the site-specific work plan.

Richard Costello has been appointed team leader and will be responsible for the sampling plan.

Please endorse below and return with your approval or amendments to this plan. If you have any questions, please feel free to contact either Andrew Frebowitz, Michael Heffron, or Mr. Costello.

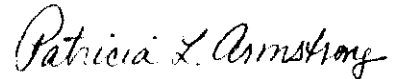
Respectfully,



Andrew Frebowitz  
Assistant Manager



Michael Heffron  
Section Supervisor



Patricia Armstrong  
Quality Assurance

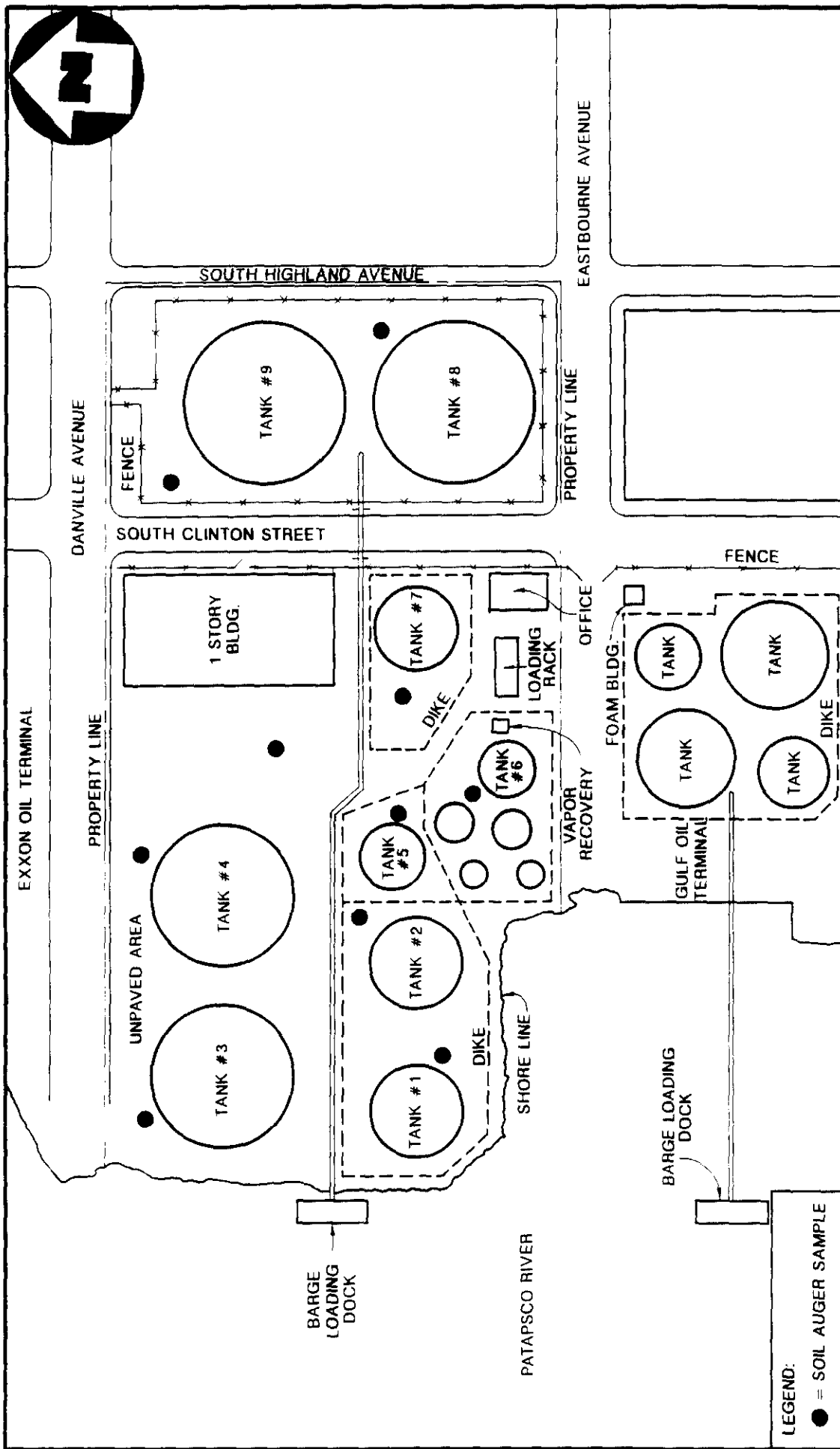
AF/law

Attachments

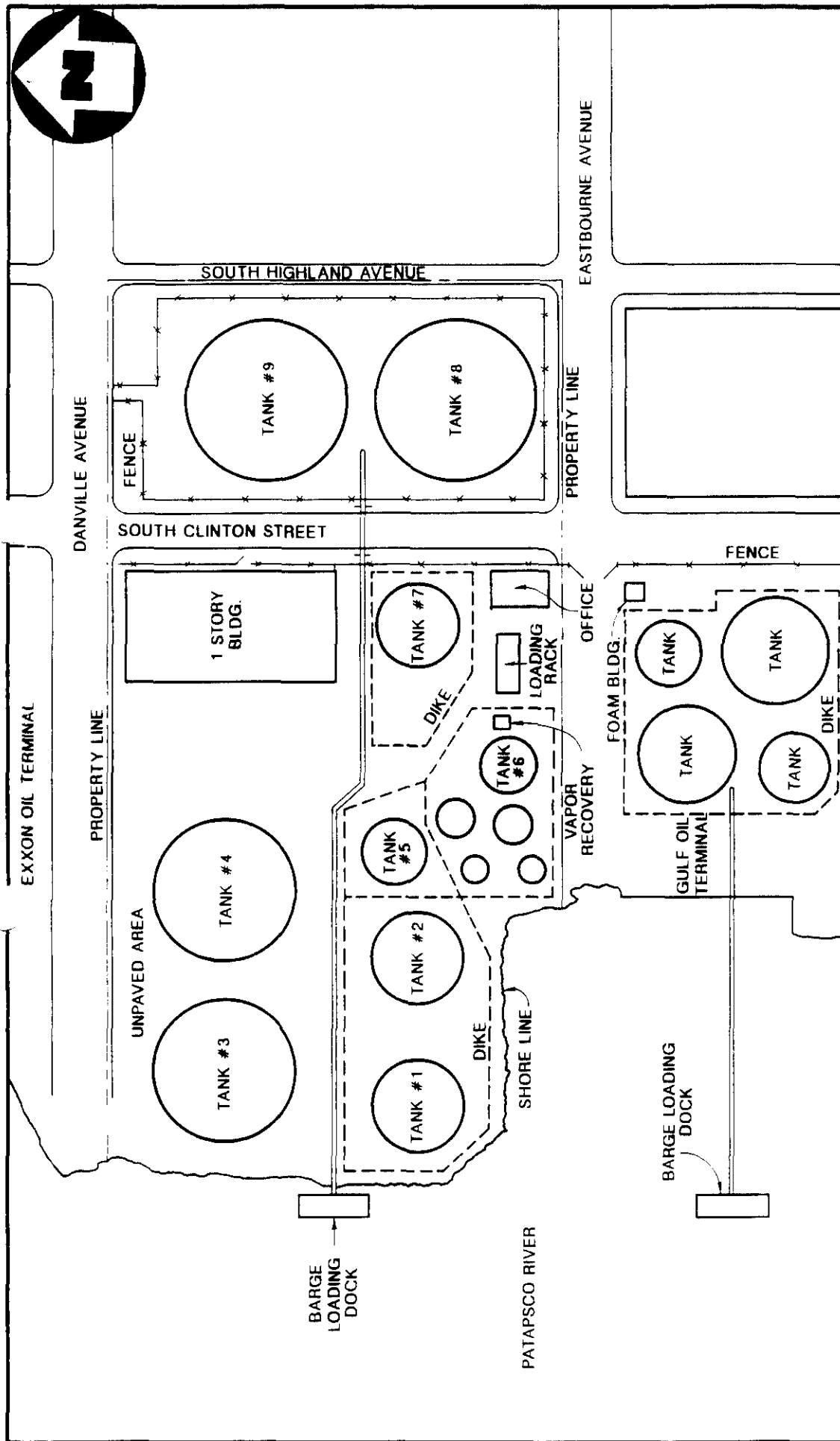
Approved by: 

Date: 4/3/90

Amendments: Please notify Ed Carlson, Maryland  
Dept. of the Environment at 301-631-3472 before  
the site inspection



PROPOSED SAMPLE LOCATION MAP  
CROWN CONTROLS PETROLEUM  
(NO SCALE)



FIGURE

SITE SKETCH  
CROWN CONTROLS PETROLEUM

(NO SCALE)



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